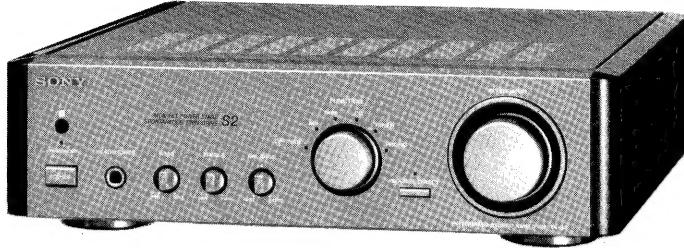


# TA-S2

## SERVICE MANUAL

AEP Model  
UK Model



TA-S2 is the integrated stereo amplifier section in SHC-S2. (UK model only)

### SPECIFICATIONS

#### Amplifier selection

Continuous RMS power output  
(German model)  
40 + 40 watts (4 ohms at 1 kHz,  
DIN)  
48 + 48 watts (4 ohms at 1 kHz,  
5 % THD)  
(other models)  
40 + 40 watts (6 ohms at 1 kHz,  
DIN)  
50 + 50 watts (6 ohms at 1 kHz,  
5 % THD)

Music power output  
(German model)  
100 + 100 watts (4 ohms at 1  
kHz, 10 % THD)  
(other models)  
85 + 85 watts (6 ohms at 1 kHz,  
10 % THD)

Total harmonic distortion  
0.01% at rated 15 W 1 kHz  
output (SOURCE DIRECT ON)

Residual noise  
Less than 150  $\mu$ V, 6 ohms,  
Network A

Frequency response  
PHONO MM (20 Hz - 20 kHz);  
RIAA equalization curve  $\pm 0.5$   
dB  
TUNER, CD, TAPE, MD, DAT/  
VIDEO, ADAPTOR IN: 10 Hz -  
50 kHz  $\pm 3$ dB

#### Input sensitivity

PHONO: MM, 2.5 mV, 50  
kilohms  
TUNER, CD, TAPE, MD, DAT/  
VIDEO, ADAPTOR IN: 150  
mV, 50 kilohms

Maximum input capability (1 kHz)  
PHONO: MM, 150 mV at 1 kHz  
S/N (network)

PHONO: 85 dB(A) (SOURCE  
DIRECT ON)  
CD: 100 dB(A) (SOURCE  
DIRECT ON)

Output voltage impedance  
TAPE, MD, DAT/VIDEO,  
ADAPTOR: 150 mV, 2 kilohms  
HEADPHONES: 25 milliwatts  
at 8 ohms, Accepts low and  
high impedance headphones.

Tone controls  
BASS:  $\pm 7$  dB at 100 Hz  
TREBLE:  $\pm 6$  dB at 10 kHz

#### General

System  
Pure-complementary SEPP  
MOS FET power amplifier

Power requirements  
220 - 230 V AC, 50/60 Hz

Power consumption  
(German model) 90 W  
(other models) 85 W

— Continued on next page —

**INTEGRATED STEREO AMPLIFIER**  
**SONY**<sup>®</sup>

## TABLE OF CONTENTS

<p>Mains 1 switched, 175 W max.</p> <p>Dimensions Approx. 310 × 90 × 360 mm (12 1/4 × 3 5/8 × 14 1/4 inches) (w/h/d)</p> <p>Mass Approx. 5.5 kg (12 lb 2 oz)</p> <p>Supplied accessories Remote commander RM-S1 (1) Sony SUM-3 (NS) (2) Audio bus cable (1)</p> <p>The above values are measured at 230 V AC. (Models for European countries.)</p> <p>Design and specifications are subject to change without notice.</p>	<table style="width: 100%; border-collapse: collapse;"> <thead> <tr> <th style="text-align: left; width: 30%;"><u>Section</u></th> <th style="text-align: left; width: 40%;"><u>Title</u></th> <th style="text-align: right; width: 30%;"><u>Page</u></th> </tr> </thead> <tbody> <tr> <td style="vertical-align: top;">1. GENERAL .....</td> <td style="vertical-align: top;">.....</td> <td style="vertical-align: top; text-align: right;">3</td> </tr> <tr> <td style="vertical-align: top;">2. ELECTRICAL ADJUSTMENTS .....</td> <td style="vertical-align: top;">.....</td> <td style="vertical-align: top; text-align: right;">4</td> </tr> <tr> <td style="vertical-align: top;">3. DIAGRAMS</td> <td></td> <td></td> </tr> <tr> <td style="vertical-align: top;">3-1. Circuit Boards Location .....</td> <td style="vertical-align: top;">.....</td> <td style="vertical-align: top; text-align: right;">4</td> </tr> <tr> <td style="vertical-align: top;">3-2. Block Diagram .....</td> <td style="vertical-align: top;">.....</td> <td style="vertical-align: top; text-align: right;">5</td> </tr> <tr> <td style="vertical-align: top;">3-3. Printed Wiring Boards .....</td> <td style="vertical-align: top;">.....</td> <td style="vertical-align: top; text-align: right;">8</td> </tr> <tr> <td style="vertical-align: top;">3-4. Schematic Diagram .....</td> <td style="vertical-align: top;">.....</td> <td style="vertical-align: top; text-align: right;">11</td> </tr> <tr> <td style="vertical-align: top;">3-5. Semiconductor Lead Layouts .....</td> <td style="vertical-align: top;">.....</td> <td style="vertical-align: top; text-align: right;">15</td> </tr> <tr> <td style="vertical-align: top;">3-6. IC Pin Function • IC301 Main Controller (TMP87C846N-4109)</td> <td style="vertical-align: top;">.....</td> <td style="vertical-align: top; text-align: right;">16</td> </tr> <tr> <td style="vertical-align: top;">4. EXPLODED VIEWS</td> <td></td> <td></td> </tr> <tr> <td style="vertical-align: top;">4-1. Front Panel and Case Section .....</td> <td style="vertical-align: top;">.....</td> <td style="vertical-align: top; text-align: right;">17</td> </tr> <tr> <td style="vertical-align: top;">4-2. Main Board Section .....</td> <td style="vertical-align: top;">.....</td> <td style="vertical-align: top; text-align: right;">18</td> </tr> <tr> <td style="vertical-align: top;">5. ELECTRICAL PARTS LIST .....</td> <td style="vertical-align: top;">.....</td> <td style="vertical-align: top; text-align: right;">19</td> </tr> </tbody> </table>	<u>Section</u>	<u>Title</u>	<u>Page</u>	1. GENERAL .....	.....	3	2. ELECTRICAL ADJUSTMENTS .....	.....	4	3. DIAGRAMS			3-1. Circuit Boards Location .....	.....	4	3-2. Block Diagram .....	.....	5	3-3. Printed Wiring Boards .....	.....	8	3-4. Schematic Diagram .....	.....	11	3-5. Semiconductor Lead Layouts .....	.....	15	3-6. IC Pin Function • IC301 Main Controller (TMP87C846N-4109)	.....	16	4. EXPLODED VIEWS			4-1. Front Panel and Case Section .....	.....	17	4-2. Main Board Section .....	.....	18	5. ELECTRICAL PARTS LIST .....	.....	19
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### SAFETY-RELATED COMPONENT WARNING !!

**COMPONENTS IDENTIFIED BY MARK  $\Delta$  OR DOTTED LINE WITH MARK  $\Delta$  ON THE SCHEMATIC DIAGRAMS AND IN THE PARTS LIST ARE CRITICAL TO SAFE OPERATION. REPLACE THESE COMPONENTS WITH SONY PARTS WHOSE PART NUMBERS APPEAR AS SHOWN IN THIS MANUAL OR IN SUPPLEMENTS PUBLISHED BY SONY.**

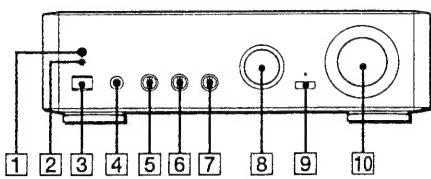
## SECTION 1

### GENERAL

This section is extracted from  
instruction manual.

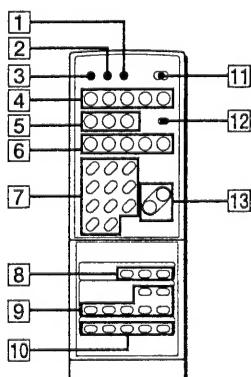
## Index to Parts and Controls

### Front Panel



- [1] Remote sensor
- [2] ON/STANDBY indicator (7)
- [3] POWER switch (7)
- [4] HEADPHONES jack (7)
- [5] BASS control (7)
- [6] TREBLE control (7)
- [7] BALANCE control (7)
- [8] FUNCTION control (7)
- [9] SOURCE DIRECT control (7)
- [10] ATTENUATOR control (7)

### Remote Commander



- [1] MUTING button (7)
- [2] SOURCE DIRECT button
- [3] FUNCTION button

Each time you press FUNCTION, the function changes as follows:  
DAT/VIDEO → MD → TAPE → CD → TUNER → PHONO →...

- [4] Cassette deck operating buttons
  - ◀ (reverse side play)
  - ▶ (upper side play)
  - (stop)
  - ◀◀/▶▶ (fast leftward / rightward)  
(AMS\*)
- [5] Tuner operating buttons
  - SHIFT: Each time you press SHIFT, the letter (A - C) changes as follows:  
A → B → C →...
  - PRESET -/+: Press - or + to select the number (0 - 9).
- [6] CD operating buttons
  - ▶ (play)
  - (pause)
  - (stop)
  - ◀◀/▶▶ (AMS\*)
- [7] Tuner/CD numeric buttons
- [8] Tape control buttons
  - REC (recording)
  - REC MUTE (recording mute)
  - (pause)
- [9] CD control buttons
  - CHECK: Press the button to check the programme.
  - CLEAR: Press the button to erase a specific track.
  - CONTINUE: Press the button to play tracks continuously.
  - SHUFFLE: Press the button to play tracks in random order.
  - PROGRAM: Press the button to play tracks in the desired order.
  - REPEAT: Press the button to play tracks repeatedly.
  - TIME: Press the button to change the time to be displayed.
- [10] MD control buttons
  - ▶ (play)
  - (pause)
  - (stop)
  - ◀◀/▶▶ (AMS\*)
- [11] SYSTEM POWER switch (8)
- [12] TUNER/CD switch
- [13] ATTENUATOR +/− buttons

\*AMS: Automatic Music Sensor

## SECTION 2

### ELECTRICAL ADJUSTMENTS

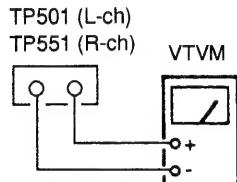
**Note :**

1. DC BIAS adjustments should be made four minutes after the POWER switch is turned on (POWER ON).
2. After replacing the power transistors, DC BIAS adjustments should be made.

#### DC Bias Adjustment (with no signal input)

**Procedure :**

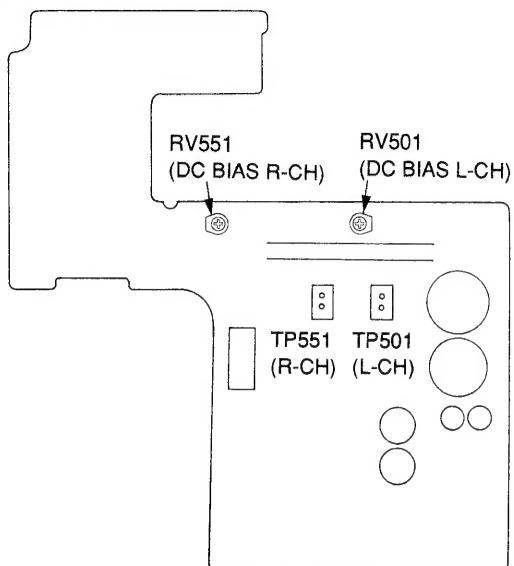
MAIN B BOARD



	Adjustment part	Reading on VTVM
L ch	RV501	15mV
R ch	RV551	15mV

**[MAIN BOARD]**

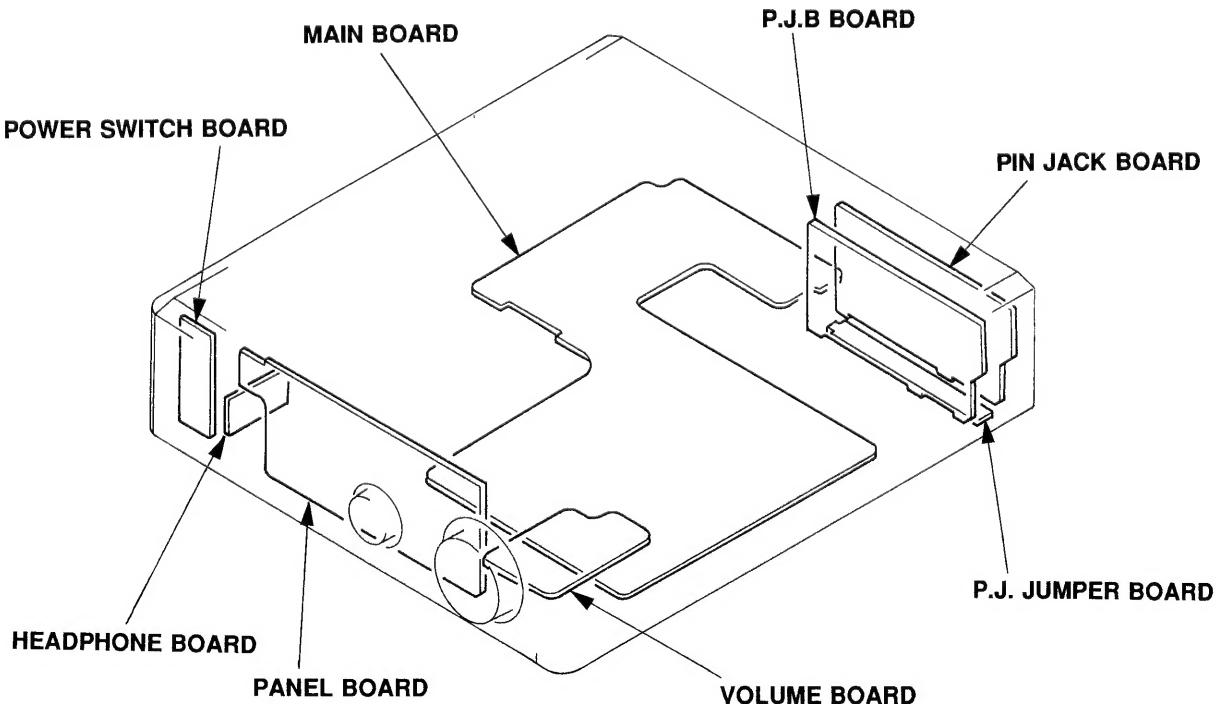
— Component Side —



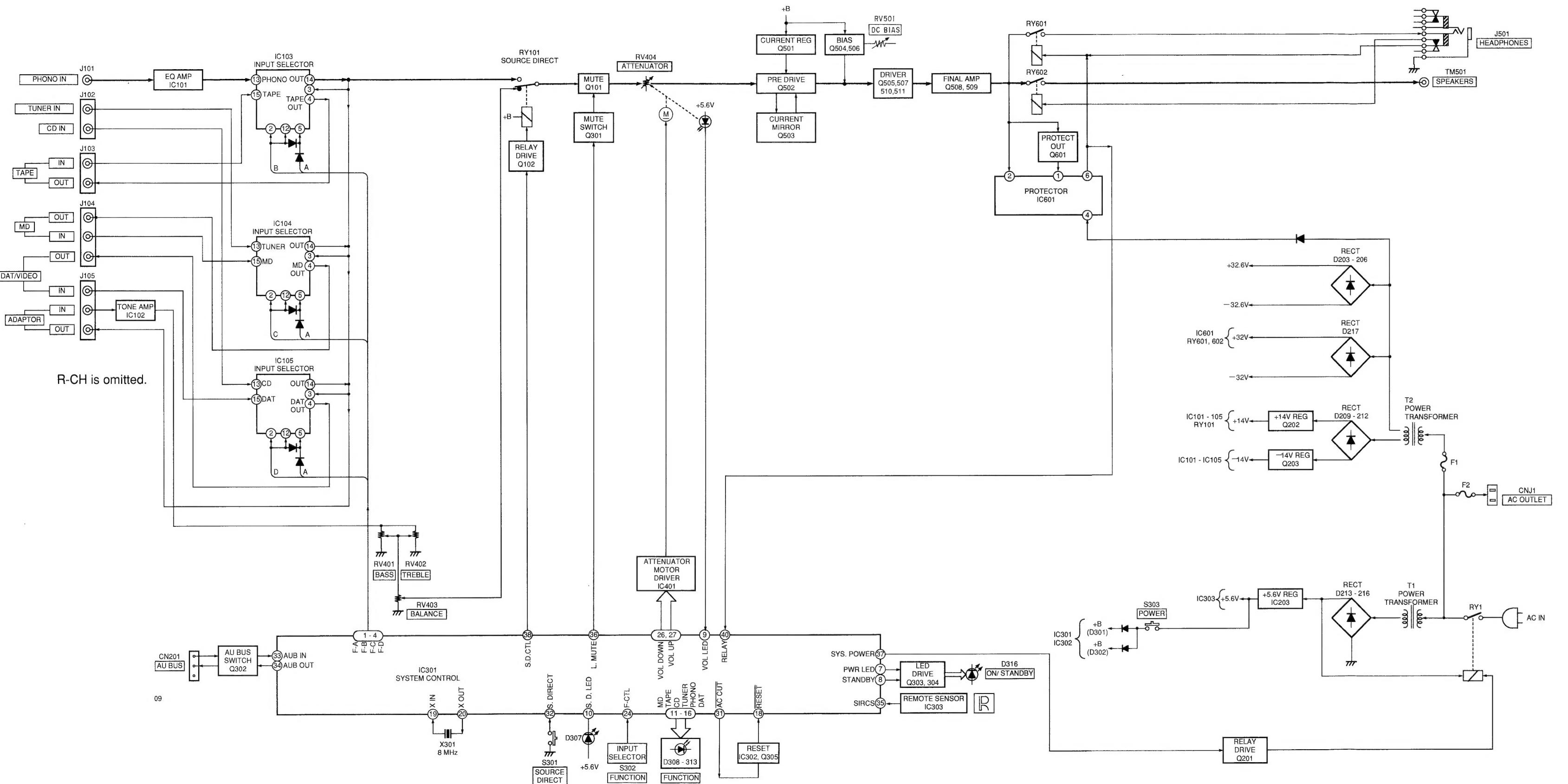
## SECTION 3

### DIAGRAMS

#### 3-1. CIRCUIT BOARDS LOCATION



## 3-2. BLOCK DIAGRAM

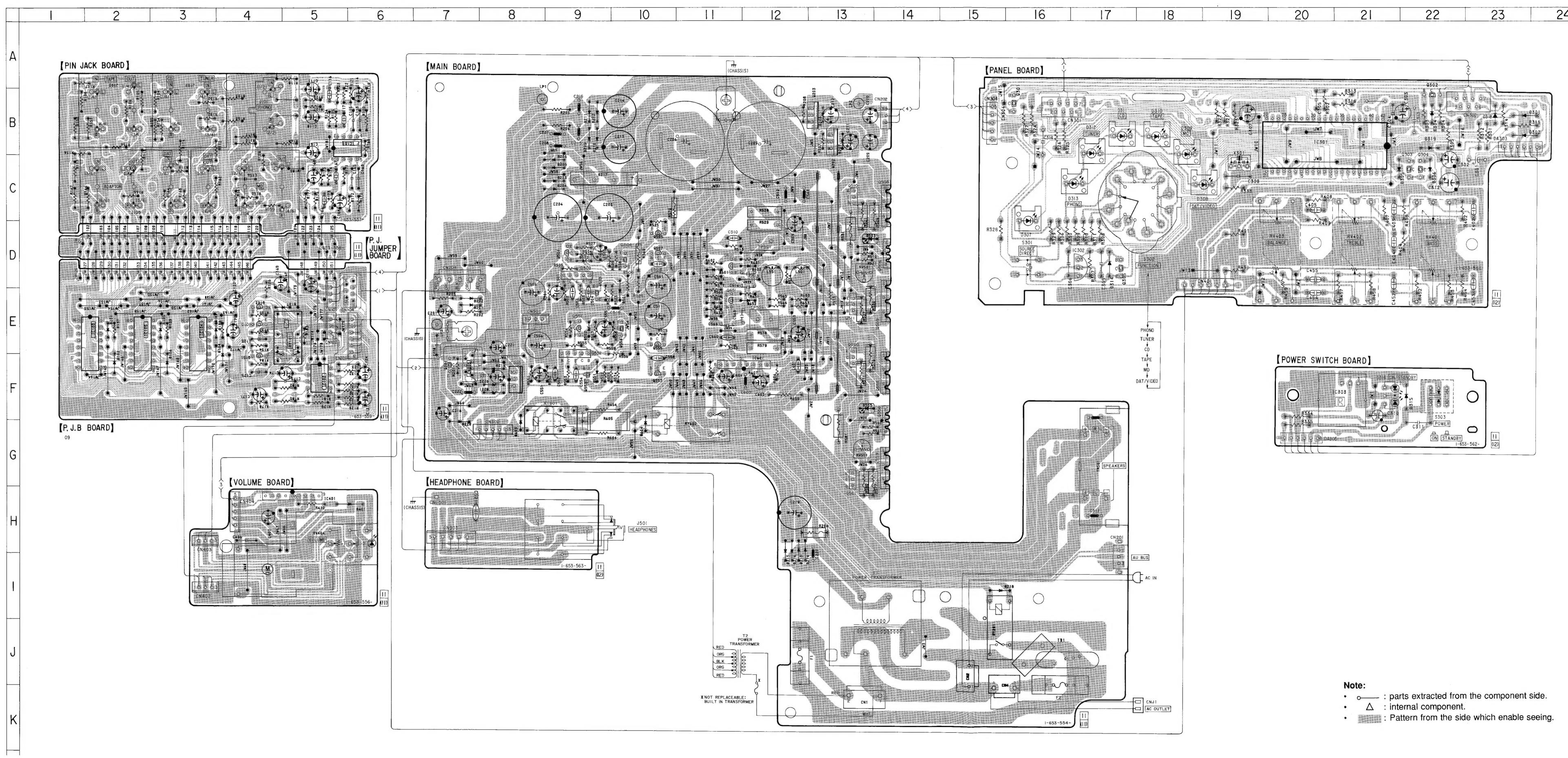


## 3-3. PRINTED WIRING BOARDS

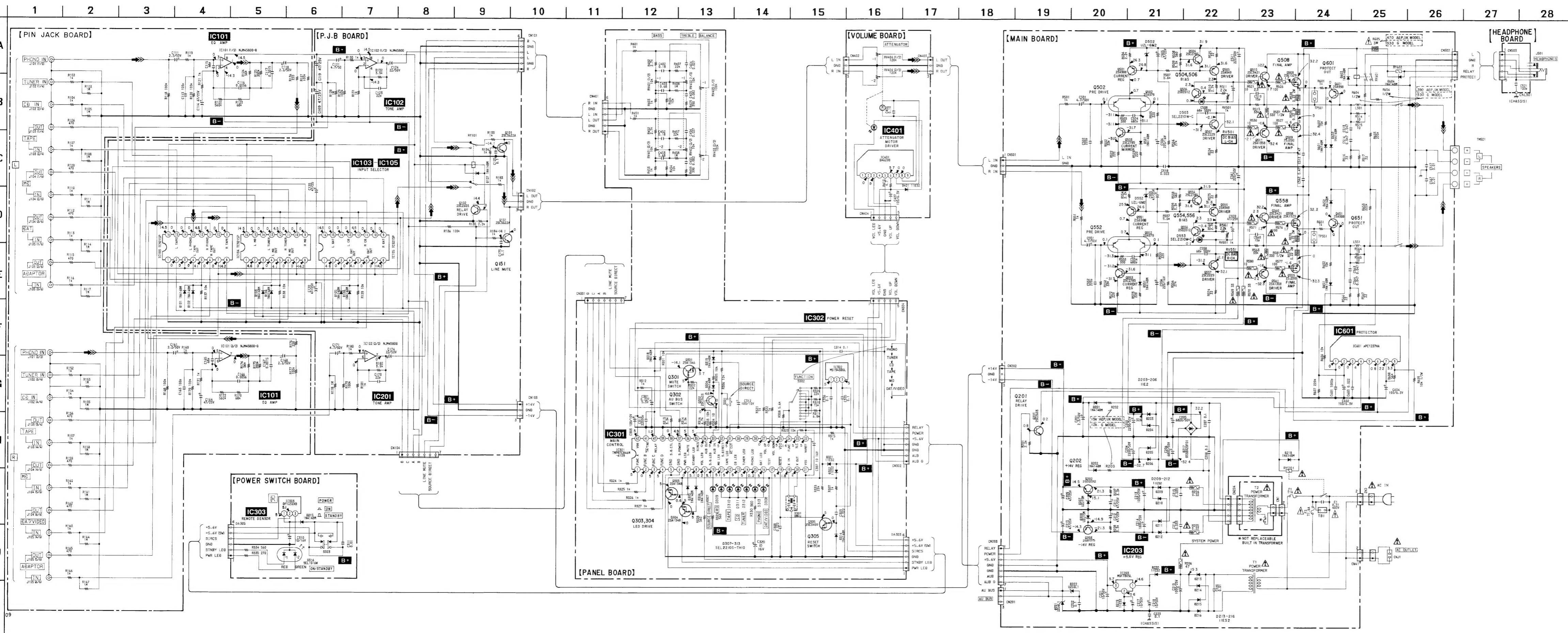
- See page 4 for Circuit Boards Location.
- See page 15 for Semiconductor Lead Layouts.

## • Semiconductor Location

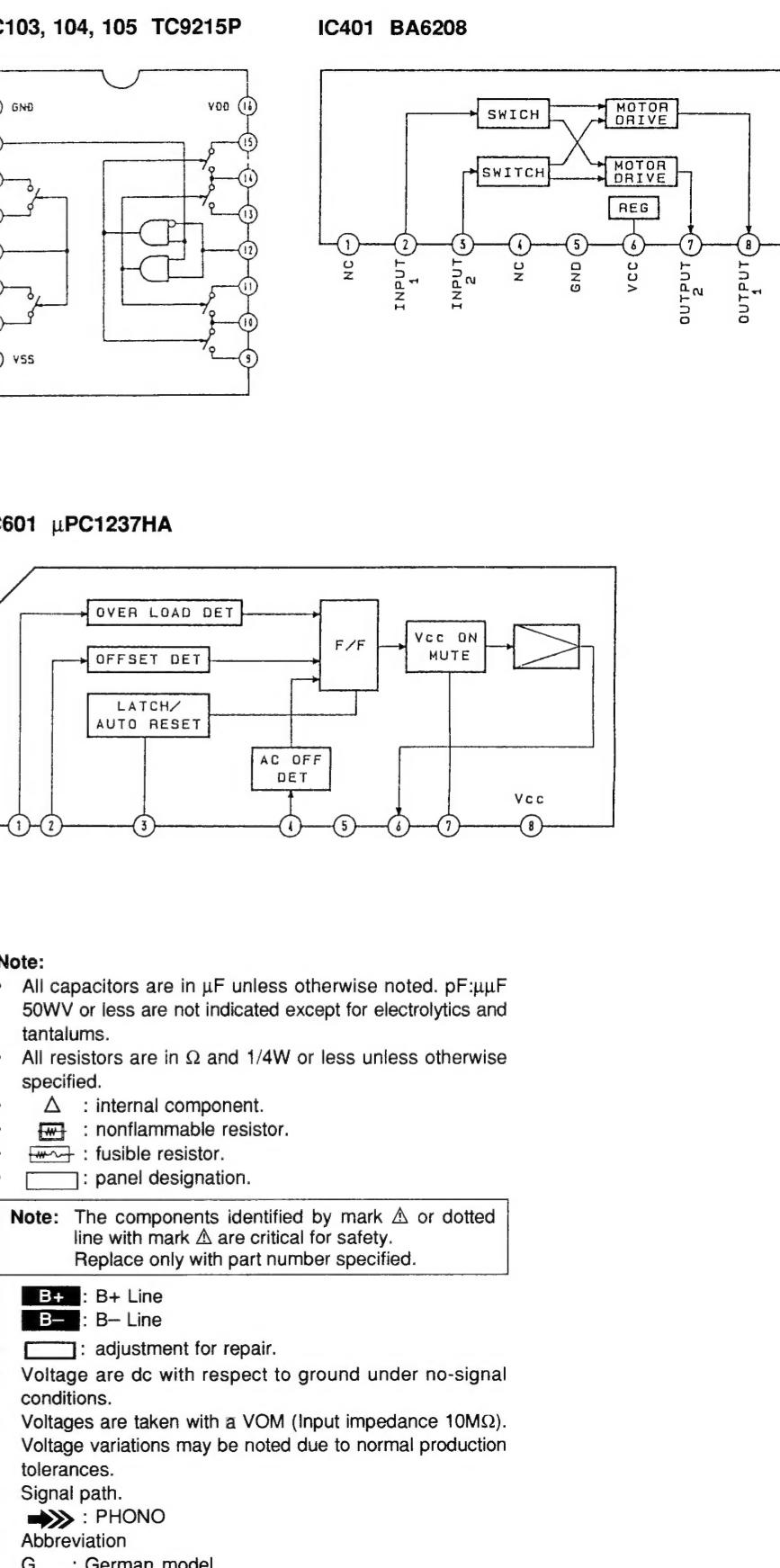
Ref. No.	Location	Ref. No.	Location
D101	E-2	Q101	E-4
D102	F-2	Q102	E-4
D103	E-3	Q151	F-4
D104	E-4	Q201	F-7
D105	E-3	Q202	B-13
D106	F-3	Q203	B-13
D107	E-5	Q204	B-16
D201	E-7	Q302	B-22
D202	E-7	Q303	C-22
D203	C-9	Q304	C-22
D204	C-9	Q305	D-17
D205	C-9	Q501	D-9
D206	C-9	Q502	D-9
D207	B-13	Q503	E-9
D208	B-13	Q504	D-10
D209	B-9	Q505	D-10
D210	B-9	Q506	D-14
D211	B-9	Q507	D-10
D212	B-9	Q508	C-14
D213	I-12	Q509	E-14
D214	I-12	Q510	C-13
D215	I-12	Q511	E-13
D216	I-12	Q551	E-9
D217	C-9	Q552	F-9
D218	I-15	Q553	F-9
D219	F-8	Q554	E-10
D220	G-7	Q555	E-10
D221	F-8	Q556	F-14
D222	F-8	Q557	F-10
D301	B-23	Q558	F-14
D302	B-23	Q559	G-14
D304	B-22	Q560	E-13
D305	C-21	Q561	H-13
D306	C-22	Q601	D-11
D307	D-16	Q651	E-11
D308	C-18		
D309	B-18		
D310	B-18		
D311	B-17		
D312	B-17		
D313	C-16		
D314	D-17		
D315	F-22		
D316	F-21		
D318	B-23		
D319	B-22		
D401	H-6		
D501	E-10		
D502	D-9		
D503	D-13		
D551	F-9		
D552	E-9		
D553	F-13		
D601	D-11		
D602	D-12		
D603	G-8		
D604	G-10		
D651	E-11		
D652	E-12		
IC101	B-5		
IC102	F-5		
IC103	E-2		
IC104	E-3		
IC105	E-2		
IC203	F-8		
IC301	B-20		
IC302	D-17		
IC303	F-21		
IC401	H-5		
IC601	F-12		



3-4. SCHEMATIC DIAGRAM  
• See page 16 for IC Pin Functions. (IC301)



• IC BLOCK DIAGRAMS



**Note:**

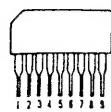
- All capacitors are in  $\mu$ F unless otherwise noted.  $\mu$ F or  $\mu$ uF 50V or less are not indicated except for electrolytics and tantalums.
- All resistors are in  $\Omega$  and 1/4W unless otherwise specified.
- $\triangle$  : internal component.
- $\#$  : nonflammable resistor.
- $\text{---}$  : fusible resistor.
- $\square$  : panel designation.

**Note:** The components identified by mark  $\triangle$  or dotted line with mark  $\triangle$  are critical for safety. Replace only with part number specified.

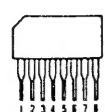
- $\text{B+}$  : B+ Line
- $\text{B-}$  : B- Line
- $\square$  : adjustment for repair.
- Voltage are dc with respect to ground under no signal conditions.
- Voltages are taken with a VOM (input impedance 1M $\Omega$ ). Voltage variations may be noted due to normal production tolerances.
- Signal path.
- $\gg$  : PHONO
- Abbreviation
- G : German model.

### 3-5. SEMICONDUCTOR LEAD LAYOUTS

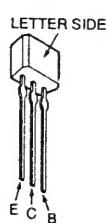
**BA6208**



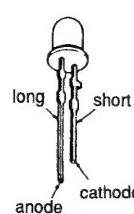
**$\mu$ PC1237HA**



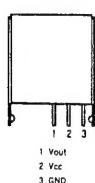
**2SC403SP-51**



**SLR34UW5**



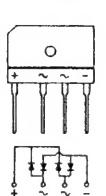
**GP1U50XB**



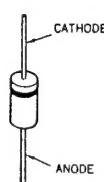
**DTA114ES  
DTA124ES  
DTC124ES  
2SC2603-EF  
2SC3622A-LK**



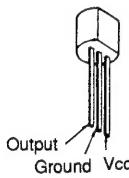
**D5SBA20F01**



**1N4148M  
10E2**



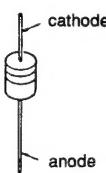
**M51943BSL**



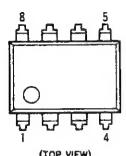
**2SA949-OY-E6  
2SA988-PAFAEA  
2SA2229-OY-E6**



**HZS6A1L  
UZL-6L1  
UZL-6M2  
UZL-15M  
11ES2**



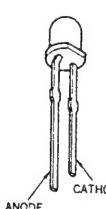
**NJM4580D  
NJM4580D-D**



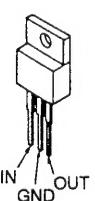
**2SA979-FG**



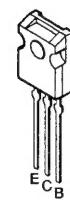
**SEL1516W**



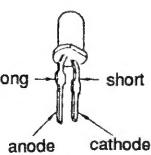
**TA7805S**



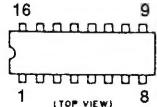
**2SA1358-OY  
2SC3421-OY**



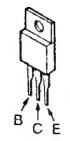
**SEL2210S-TH10**



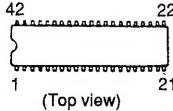
**TC9215P**



**2SB1094-LK  
2SD2012**



**TMP87C846N-4109**



### 3-6. IC PIN FUNCTION

- **IC301 MAIN CONTROLLER (TMP87C846N-4109)**

Pin No.	Pin Name	I/O	Function
1	FUNC A	O	Output control A terminal, normal: "L".
2	FUNC B	O	Output control B terminal, normal: "L".
3	FUNC C	O	Output control C terminal, normal: "L".
4	FUNC D	O	Output mute control terminal, normal: "L".
5	GND	—	GND terminal.
6	GND	—	GND terminal.
7	PWR LED	O	Power LED drive signal. (ON: L)
8	STANDBY LED	O	Standby LED drive signal. (ON: L)
9	VOL LED	O	Attenuator volume LED drive signal. (ON: L)
10	S.D. LED	O	Source direct LED drive signal. (ON: L)
11	MD LED	O	Function LED drive signal. (ON: L)
12	TAPE LED	O	Function LED drive signal. (ON: L)
13	CD LED	O	Function LED drive signal. (ON: L)
14	TUNER LED	O	Function LED drive signal. (ON: L)
15	PHONO LED	O	Function LED drive signal. (ON: L)
16	DAT LED	O	Function LED drive signal. (ON: L)
17	TEST	I	GND terminal.
18	RESET	I/O	Reset signal. (Reset: L)
19	XIN	I	Clock signal input terminal.
20	XOUT	O	Clock signal output terminal.
21	Vss	—	GND terminal.
22	VAREF	I	A/D conversion power supply terminal.
23	N.C	—	Not used.
24	FUNC	I	Position data of input selector switch.
25	VDD	—	Power supply terminal.
26	VOL DOWN	O	Attenuator volume down control signal, normal: "L".
27	VOL UP	O	Attenuator volume up control signal, normal: "L".
28	—	—	Not used. (Open)
29	—	—	Not used. (Open)
30	—	—	Not used. (Open)
31	AC CUT	I	AC cut signal. (Active: L)
32	S. DIRECT	I	Source direct key input terminal. (Active: L)
33	AUB IN	I	AU BUS signal input terminal, normal: "H".
34	AUB OUT	O	AU BUS signal output terminal, normal: "L".
35	SIRCS	I	SIRCS signal input terminal, normal: "H".
36	L. MUTE	O	Line mute control signal. (Active: L)
37	S. POWER	O	System power supply control signal. (Active: H)
38	S.D. CTL	O	Source direct control signal. (Active: H)
39	—	—	Not used. (GND)
40	RELAY	I	RELAY signal input terminal. (Active: L)
41	TA/TAE	I	TA/TAE select signal input terminal.
42	VDD	—	Power supply (+5V) terminal.

## SECTION 4

### EXPLODED VIEWS

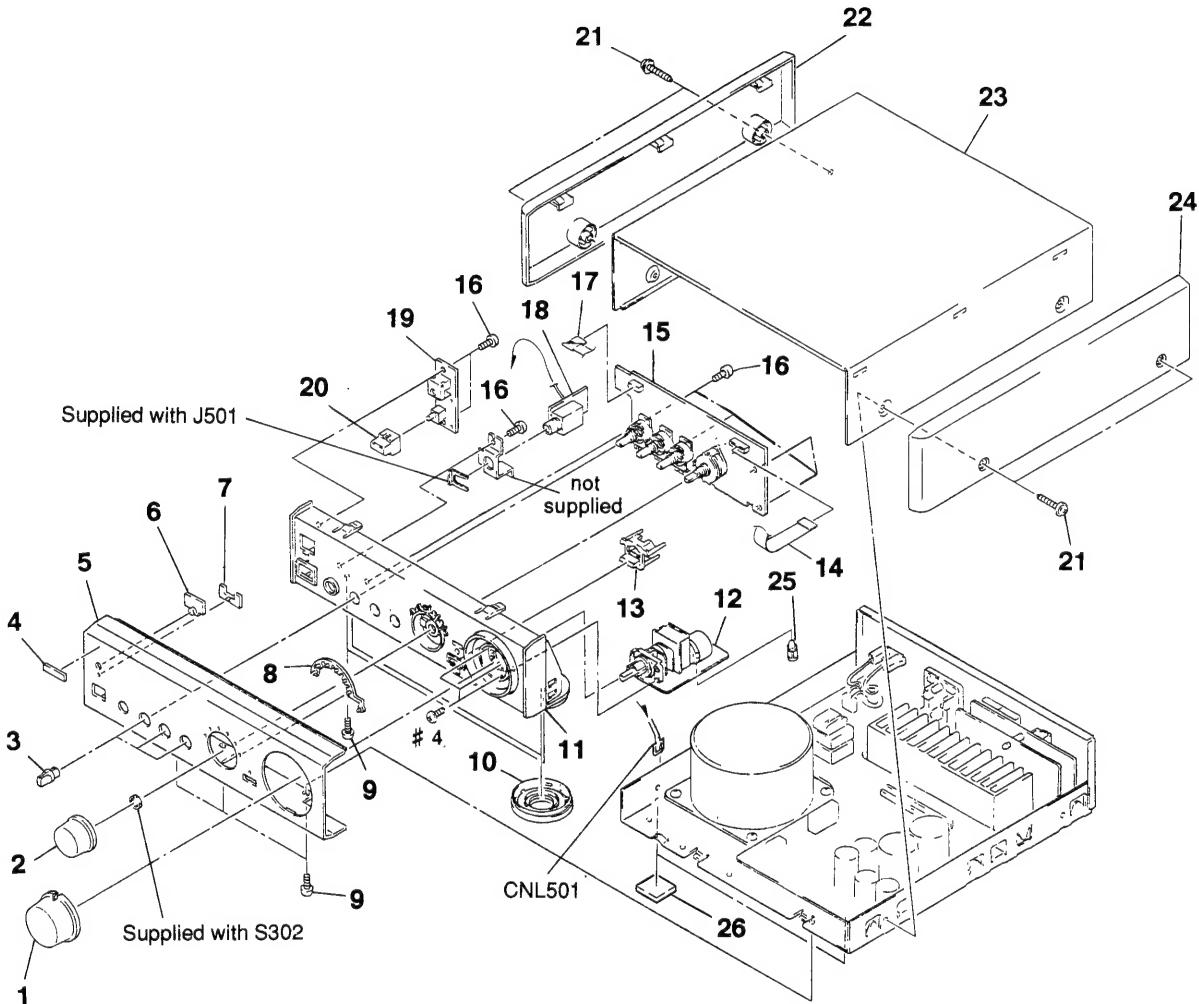
#### NOTE:

- Items marked “\*” are not stocked since they are seldom required for routine service. Some delay should be anticipated when ordering these items.
- Abbreviation  
G : German model

- -XX, -X mean standardized parts, so they may have some difference from the original one.
- The mechanical parts with no reference number in the exploded views are not supplied.
- Hardware (# mark) list and accessories and packing materials are given in the last of this parts list.

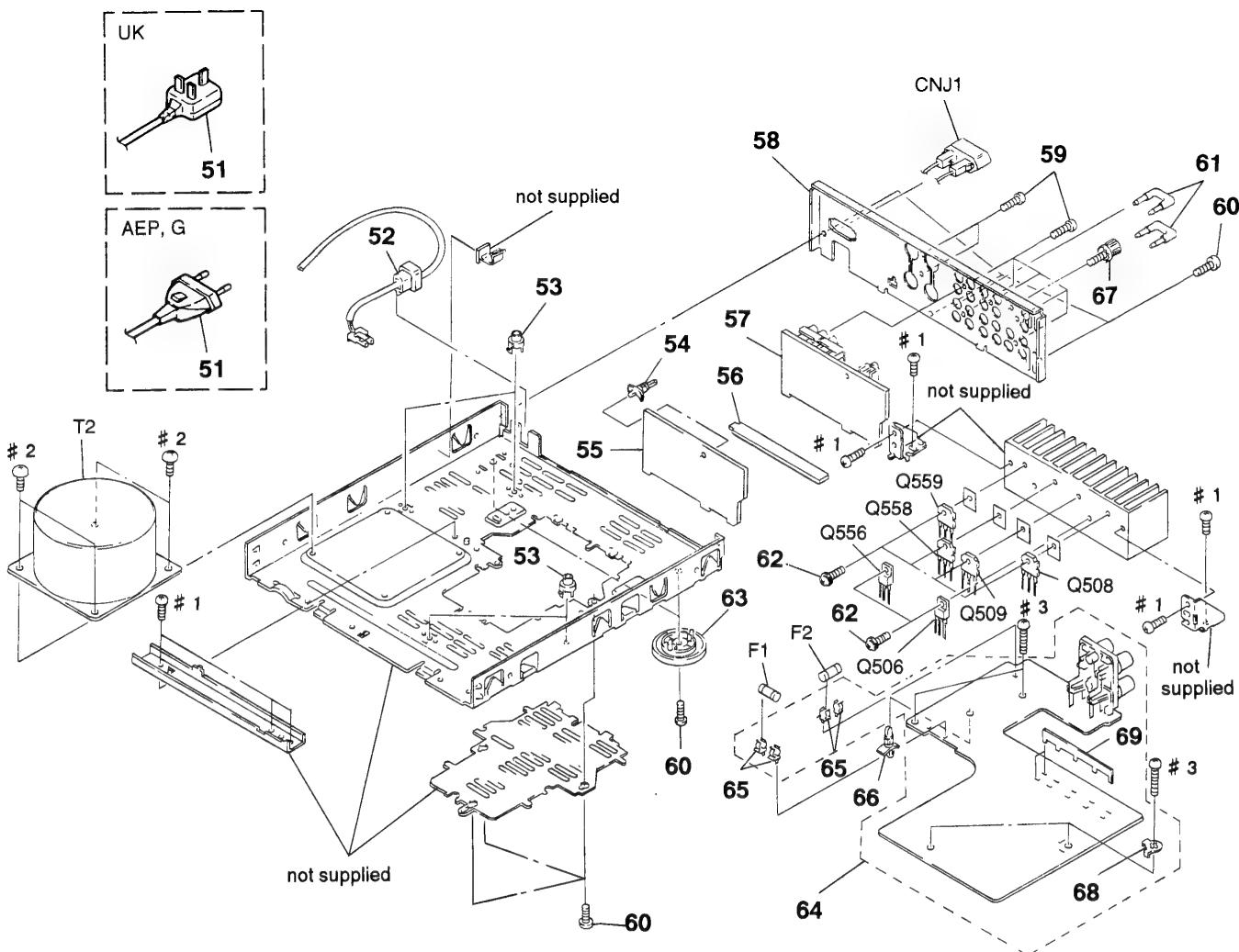
The components identified by mark  $\Delta$  or dotted line with mark  $\Delta$  are critical for safety.  
Replace only with part number specified.

#### 4-1. FRONT PANEL AND CASE SECTION



Ref. No.	Part No.	Description	Remark	Ref. No.	Part No.	Description	Remark
1	X-4945-130-1	KNOB (DIA. 43) ASSY		* 15	A-4371-640-A	PANEL BOARD, COMPLETE (G)	
2	X-4945-131-1	KNOB (DIA. 31) ASSY		16	4-951-620-01	SCREW (2.6X8), +BVTP	
3	4-968-107-01	KNOB (DIA. 13)		17	1-696-986-11	WIRE (FLAT TYPE) (7 CORE)	
4	4-969-961-11	EMBLEM (NO. 4), SONY		* 18	1-653-563-11	HEADPHONE BOARD	
5	4-968-087-01	PANEL, FRONT		* 19	1-653-562-11	POWER SWITCH BOARD	
6	4-968-092-01	FILTER		20	4-968-098-01	BUTTON (P)	
7	4-968-091-01	INDICATOR (PO)		21	4-969-954-01	SCREW (SIDE PANEL)	
8	4-968-090-01	INDICATOR (FU)		22	X-4945-476-1	PANEL (L)ASSY, SIDE	
9	3-704-515-21	SCREW (BV/RING)		23	4-967-150-11	CASE	
10	X-4945-079-1	RING ASSY, FOOT		24	X-4945-477-1	PANEL (R)ASSY, SIDE	
11	X-4945-344-1	BASE ASSY, PANEL		* 25	3-350-847-21	HOLDER, PCB	
* 12	1-653-556-11	VOLUME BOARD		26	3-342-416-01	SHEET (F), INSULATING	
13	4-968-089-01	BUTTON (1)		* CNL501	1-690-880-11	LEAD (WITH CONNECTOR)	
14	1-751-801-11	WIRE (FLAT TYPE) (7 CORE)					
* 15	A-4371-633-A	PANEL BOARD, COMPLETE (AEP, UK)					

## 4-2. MAIN BOARD SECTION



The components identified by mark  $\triangle$  or dotted line with mark  $\triangle$  are critical for safety.  
Replace only with part number specified.

Ref. No.	Part No.	Description	Remark	Ref. No.	Part No.	Description	Remark
$\triangle$ 51	1-575-651-21	CORD, POWER (AEP, G)		* 64	A-4371-637-A	MAIN BOARD, COMPLETE (G)	
$\triangle$ 51	1-696-571-11	CORD, POWER (UK)		65	1-533-293-11	FUSE HOLDER	
* 52	3-703-244-00	BUSHING (2104), CORD (AEP, UK)		66	4-943-687-01	HOLDER, PC BOARD	
52	3-703-244-11	BUSHING (2104), CORD (G)		67	4-947-010-01	SCREW, FEEDER FIXED	
* 53	4-968-100-01	SUPPORT, PC		68	1-537-770-11	TERMINAL BOARD, GROUND	
54	4-924-098-11	HOLDER, PC BOARD		* 69	1-560-242-31	BUS BAR 5P	
* 55	1-653-559-11	P. J. B BOARD		$\triangle$ CNJ1	1-526-794-11	OUTLET, AC	
* 56	1-653-558-11	P. J. JUMPER BOARD		$\triangle$ F1	1-532-078-00	FUSE, TIME LAG (T1A 250V)	
* 57	1-653-557-11	PIN JACK BOARD		$\triangle$ F2	1-532-259-00	FUSE, TIME LAG (T1.6A 250V)	
* 58	4-967-149-12	PANEL, BACK (AEP)		Q506	8-729-209-15	TRANSISTOR 2SD2012	
* 58	4-967-149-22	PANEL, BACK (G)		Q508	8-729-232-45	TRANSISTOR 2SK1529-Y	
* 58	4-967-149-31	PANEL, BACK (UK)		Q509	8-729-232-46	TRANSISTOR 2SJ200-Y	
59	3-704-515-41	SCREW (BV/RING)		Q556	8-729-209-15	TRANSISTOR 2SD2012	
60	3-704-515-21	SCREW (BV/RING)		Q558	8-729-232-45	TRANSISTOR 2SK1529-Y	
61	1-535-706-11	PLUG, JUMPER		Q559	8-729-232-46	TRANSISTOR 2SJ200-Y	
62	3-905-609-01	SCREW (TRANSISTOR)		$\triangle$ T2	1-426-823-11	TRANSFORMER, POWER (G)	
63	X-4945-129-1	FOOT ASSY		$\triangle$ T2	1-426-824-11	TRANSFORMER, POWER (AEP, UK)	
* 64	A-4371-636-A	MAIN BOARD, COMPLETE (AEP, UK)					

## SECTION 5

### ELECTRICAL PARTS LIST

## NOTE:

The components identified by mark  $\triangle$  or dotted line with mark  $\triangle$  are critical for safety. Replace only with part number specified.

When indicating parts by reference number, please include the board name.

- Due to standardization, replacements in the parts list may be different from the parts specified in the diagrams or the components used on the set.
- Items marked "\*" are not stocked since they are seldom required for routine service. Some delay should be anticipated when ordering these items.
- -XX, -X mean standardized parts, so they may have some difference from the original one.
- Hardware (# mark) list and accessories and packing materials are given in the last of this parts list.
- Abbreviation  
G : German model

## • RESISTORS

All resistors are in ohms

METAL: Metal-film resistor

METAL OXIDE: Metal Oxide-film resistor

F : nonflammable

## • SEMICONDUCTORS

In each case, u:  $\mu$ , for example:uA...:  $\mu$  A..., uPA...:  $\mu$  PA..., uPB...:  $\mu$  PB...uPC...:  $\mu$  PC..., uPD...:  $\mu$  PD...

## • CAPACITORS

uF :  $\mu$  F

## • COILS

uH :  $\mu$  H

Ref. No.	Part No.	Description		Remark	Ref. No.	Part No.	Description		Remark
*	1-653-563-11	HEADPHONE BOARD	*****		C222	1-136-165-00	FILM	0.1uF	5% 50V
		< CONNECTOR >			C223	1-164-159-11	CERAMIC	0.1uF	50V
					C501	1-124-927-11	ELECT	4.7uF	20% 100V
					C502	1-164-077-11	CERAMIC	220PF	10% 50V
*	CN503	1-564-508-11	PLUG, CONNECTOR 5P		C504	1-164-083-11	CERAMIC	680PF	10% 50V
*	CNL501	1-690-880-31	LEAD (WITH CONNECTOR)		C505	1-124-910-11	ELECT	47uF	20% 50V
		< JACK >			C506	1-124-120-11	ELECT	220uF	20% 25V
J501	1-507-854-21	JACK, LARGE TYPE	(HEADPHONES)		C508	1-102-989-00	CERAMIC	68PF	5% 500V
		*****			C509	1-124-910-11	ELECT	47uF	20% 50V
*	A-4371-636-A	MAIN BOARD, COMPLETE	(AEP, UK)		C510	1-164-023-11	CERAMIC	15PF	5% 50V
		*****			C511	1-126-053-11	ELECT	220uF	20% 50V
*	A-4371-637-A	MAIN BOARD, COMPLETE (G)			C512	1-136-173-00	FILM	0.47uF	5% 50V
		*****			C513	1-136-161-00	FILM	0.047uF	5% 50V
					C514	1-136-161-00	FILM	0.047uF	5% 50V
					C517	1-136-153-00	FILM	0.01uF	5% 50V
					C518	1-136-157-00	FILM	0.022uF	5% 50V
					C551	1-124-927-11	ELECT	4.7uF	20% 100V
					C552	1-164-077-11	CERAMIC	220PF	10% 50V
					C554	1-164-083-11	CERAMIC	680PF	10% 50V
					C555	1-124-910-11	ELECT	47uF	20% 50V
					C556	1-124-120-11	ELECT	220uF	20% 25V
					C558	1-102-989-00	CERAMIC	68PF	5% 500V
					C559	1-124-910-11	ELECT	47uF	20% 50V
					C560	1-164-023-11	CERAMIC	15PF	5% 50V
$\triangle$ C1	1-161-744-51	CERAMIC	0.01uF	400V	C561	1-126-053-11	ELECT	220uF	20% 50V
C201	1-124-925-11	ELECT	2.2uF	20% 100V	C562	1-136-173-00	FILM	0.47uF	5% 50V
C203	1-126-057-11	ELECT	2200uF	20% 50V	C563	1-136-161-00	FILM	0.047uF	5% 50V
C204	1-126-057-11	ELECT	2200uF	20% 50V	C564	1-136-161-00	FILM	0.047uF	5% 50V
C205	1-125-686-11	ELECT	6800uF	20% 50V	C567	1-136-153-00	FILM	0.01uF	5% 50V
C206	1-125-686-11	ELECT	6800uF	20% 50V	C601	1-164-085-11	CERAMIC	0.001uF	10% 50V
C207	1-136-165-00	FILM	0.1uF	5% 50V	C602	1-124-994-11	ELECT	100uF	20% 6.3V
C208	1-136-165-00	FILM	0.1uF	5% 50V	C603	1-136-157-00	FILM	0.022uF	5% 50V
C209	1-124-910-11	ELECT	47uF	20% 50V	C604	1-124-994-11	ELECT	100uF	20% 6.3V
C210	1-124-910-11	ELECT	47uF	20% 50V					
C211	1-124-910-11	ELECT	47uF	20% 50V					
C212	1-124-910-11	ELECT	47uF	20% 50V					
C213	1-126-027-11	ELECT	1000uF	20% 25V					
C214	1-126-027-11	ELECT	1000uF	20% 25V					
C215	1-136-159-00	FILM	0.033uF	5% 50V					
C216	1-136-159-00	FILM	0.033uF	5% 50V	* CN1	1-565-792-11	PIN, CONNECTOR 2P		
C217	1-126-059-11	ELECT	10uF	20% 50V	CN2	1-580-230-11	PIN, CONNECTOR (PC BOARD) 2P		
C218	1-126-059-11	ELECT	10uF	20% 50V	CN4	1-564-321-00	PIN, CONNECTOR 2P		
C219	1-126-027-11	ELECT	1000uF	20% 25V	* CN201	1-565-561-11	PIN, CONNECTOR 3P (AU BUS)		
C220	1-136-153-00	FILM	0.01uF	5% 50V	* CN202	1-564-506-11	PLUG, CONNECTOR 3P		
C221	1-126-059-11	ELECT	10uF	20% 50V	* CN203	1-568-826-11	SOCKET, CONNECTOR 7P		
					* CN204	1-564-242-00	PIN, CONNECTOR 5P		
					CN501	1-564-506-11	PLUG, CONNECTOR 3P		

# MAIN

Ref. No.	Part No.	Description	Remark	Ref. No.	Part No.	Description	Remark				
* CN502	1-564-508-11	PLUG, CONNECTOR 5P									
< DIODE >											
< TRANSISTOR >											
D201	8-719-987-63	DIODE	IN4148M	Q201	8-729-620-05	TRANSISTOR	2SC2603-EF				
D202	8-719-987-63	DIODE	IN4148M	Q202	8-729-209-15	TRANSISTOR	2SD2012				
D203	8-719-200-02	DIODE	10E2	Q203	8-729-141-83	TRANSISTOR	2SB1094-LK				
D204	8-719-200-02	DIODE	10E2	Q501	8-729-140-82	TRANSISTOR	2SA988-PAFAEA				
D205	8-719-200-02	DIODE	10E2	Q502	8-729-620-18	TRANSISTOR	2SA979-FG				
D206	8-719-200-02	DIODE	10E2	Q503	8-729-119-78	TRANSISTOR	2SC403SP-51				
D207	8-719-001-91	DIODE	UZL-15M	Q504	8-729-119-78	TRANSISTOR	2SC403SP-51				
D208	8-719-001-91	DIODE	UZL-15M	Q505	8-729-021-74	TRANSISTOR	2SA949-OY-TPE6				
D209	8-719-200-82	DIODE	11ES2	Q506	8-729-209-15	TRANSISTOR	2SD2012				
D210	8-719-200-82	DIODE	11ES2	Q507	8-729-021-73	TRANSISTOR	2SC2229-OY-TPE6				
D211	8-719-200-82	DIODE	11ES2	Q508	8-729-232-45	TRANSISTOR	2SK1529-Y				
D212	8-719-200-82	DIODE	11ES2	Q509	8-729-232-46	TRANSISTOR	2SJ200-Y				
D213	8-719-200-82	DIODE	11ES2	Q510	8-729-020-82	TRANSISTOR	2SC3421-OY				
D214	8-719-200-82	DIODE	11ES2	Q511	8-729-020-83	TRANSISTOR	2SA1358-OY				
D215	8-719-200-82	DIODE	11ES2	Q551	8-729-140-82	TRANSISTOR	2SA988-PAFAEA				
D216	8-719-200-82	DIODE	11ES2	Q552	8-729-620-18	TRANSISTOR	2SA979-FG				
D217	8-719-510-68	DIODE	D5SBA20F01	Q553	8-729-119-78	TRANSISTOR	2SC403SP-51				
D218	8-719-987-63	DIODE	IN4148M	Q554	8-729-119-78	TRANSISTOR	2SC403SP-51				
D219	8-719-200-82	DIODE	11ES2	Q555	8-729-021-74	TRANSISTOR	2SA949-OY-TPE6				
D220	8-719-200-82	DIODE	11ES2	Q556	8-729-209-15	TRANSISTOR	2SD2012				
D221	8-719-933-33	DIODE	HZS6A1L	Q557	8-729-021-73	TRANSISTOR	2SC2229-OY-TPE6				
D222	8-719-933-33	DIODE	HZS6A1L	Q558	8-729-232-45	TRANSISTOR	2SK1529-Y				
D501	8-719-987-63	DIODE	IN4148M	Q559	8-729-232-46	TRANSISTOR	2SJ200-Y				
D502	8-719-000-60	DIODE	UZL-6M2	Q560	8-729-020-82	TRANSISTOR	2SC3421-OY				
D503	8-719-900-19	DIODE	SLR34UW5	Q561	8-729-020-83	TRANSISTOR	2SA1358-OY				
D551	8-719-987-63	DIODE	IN4148M	Q601	8-729-140-82	TRANSISTOR	2SA988-PAFAEA				
D552	8-719-000-60	DIODE	UZL-6M2	Q651	8-729-140-82	TRANSISTOR	2SA988-PAFAEA				
D553	8-719-900-19	DIODE	SLR34UW5	< RESISTOR >							
D601	8-719-987-63	DIODE	IN4148M	△R201	1-249-421-11	CARBON	2.2K 5% 1/4W F				
D602	8-719-987-63	DIODE	IN4148M	R202	1-259-454-11	CARBON	12K 5% 1/6W (G)				
D603	8-719-987-63	DIODE	IN4148M	R202	1-259-456-11	CARBON	15K 5% 1/6W (AEP, UK)				
D604	8-719-987-63	DIODE	IN4148M	R203	1-259-454-11	CARBON	12K 5% 1/6W (G)				
D651	8-719-987-63	DIODE	IN4148M	R203	1-259-456-11	CARBON	15K 5% 1/6W (AEP, UK)				
D652	8-719-987-63	DIODE	IN4148M	R204	1-219-136-11	FUSIBLE	0.22 10% 1/4W				
< FUSE >											
△F1	1-532-078-00	FUSE, TIME LAG (T1A 250V)		R205	1-219-136-11	FUSIBLE	0.22 10% 1/4W				
△F2	1-532-259-00	FUSE, TIME LAG (T1.6A 250V)		△R206	1-212-873-11	FUSIBLE	47 5% 1/4W F				
< IC >				R207	1-259-440-11	CARBON	3.3K 5% 1/6W				
IC203	8-759-231-53	IC	TA7805S	R208	1-259-440-11	CARBON	3.3K 5% 1/6W				
IC601	8-759-111-68	IC	uPC1237HA	R501	1-259-428-11	CARBON	1K 5% 1/6W				
< COIL >				R502	1-259-464-11	CARBON	33K 5% 1/6W				
* L501	1-420-872-00	COIL, AIR CORE		R503	1-259-416-11	CARBON	330 5% 1/6W				
* L551	1-420-872-00	COIL, AIR CORE		R504	1-259-436-11	CARBON	2.2K 5% 1/6W				
< COIL >				R505	1-259-412-11	CARBON	220 5% 1/6W				
R506	1-259-462-11	CARBON	27K 5% 1/6W								
R507	1-259-446-11	CARBON	5.6K 5% 1/6W								
R508	1-259-422-11	CARBON	560 5% 1/6W								
R509	1-259-440-11	CARBON	3.3K 5% 1/6W								
R510	1-259-438-11	CARBON	2.7K 5% 1/6W								

The components identified by mark  $\triangle$  or dotted line with mark  $\triangle$  are critical for safety.  
Replace only with part number specified.

**MAIN****P.J. JUMPER****P.J.B**

Ref. No.	Part No.	Description	Remark	Ref. No.	Part No.	Description	Remark
R511	1-259-436-11	CARBON	2.2K 5% 1/6W	R604	1-249-792-11	CARBON	390 5% 1/2W (AEP, UK)
R513	1-259-464-11	CARBON	33K 5% 1/6W	△R605	1-215-914-11	METAL OXIDE	330 5% 3W F(G)
R514	1-259-380-11	CARBON	10 5% 1/6W	△R605	1-215-915-11	METAL OXIDE	470 5% 3W F(AEP, UK)
R515	1-259-380-11	CARBON	10 5% 1/6W	R606	1-259-452-11	CARBON	10K 5% 1/6W
R516	1-259-388-11	CARBON	22 5% 1/6W	R607	1-259-484-11	CARBON	220K 5% 1/6W
R517	1-259-388-11	CARBON	22 5% 1/6W	R608	1-259-470-11	CARBON	56K 5% 1/6W
△R521	1-212-857-00	FUSIBLE	10 5% 1/4W F	R609	1-247-764-11	CARBON	10K 5% 1/2W
R522	1-259-412-11	CARBON	220 5% 1/6W	R651	1-259-428-11	CARBON	1K 5% 1/6W
R523	1-259-412-11	CARBON	220 5% 1/6W	R652	1-259-456-11	CARBON	15K 5% 1/6W
R524	1-259-388-11	CARBON	22 5% 1/6W	R653	1-259-484-11	CARBON	220K 5% 1/6W
R525	1-259-388-11	CARBON	22 5% 1/6W	R654	1-249-661-11	CARBON	330 5% 1/2W (G)
△R526	1-212-881-11	FUSIBLE	100 5% 1/4W F	R654	1-249-792-11	CARBON	390 5% 1/2W (AEP, UK)
△R527	1-212-881-11	FUSIBLE	100 5% 1/4W F	< VARIABLE RESISTOR >			
△R528	1-217-151-00	METAL PLATE	0.22 2W F	RV501	1-241-761-11	RES, ADJ, CERMET	1K (DC BIAS L-CH)
△R529	1-217-151-00	METAL PLATE	0.22 2W F	RV551	1-241-761-11	RES, ADJ, CERMET	1K (DC BIAS R-CH)
△R530	1-212-857-00	FUSIBLE	10 5% 1/4W F	< RELAY >			
△R531	1-212-994-00	FUSIBLE	330 5% 1/2W F	△RY201	1-515-849-11	RELAY	
R551	1-259-428-11	CARBON	1K 5% 1/6W	RY601	1-515-727-11	RELAY	
R552	1-259-464-11	CARBON	33K 5% 1/6W	RY602	1-515-676-11	RELAY	
R553	1-259-416-11	CARBON	330 5% 1/6W	< TRANSFORMER >			
R554	1-259-436-11	CARBON	2.2K 5% 1/6W	△T1	1-449-071-21	TRANSFORMER, POWER	
R555	1-259-412-11	CARBON	220 5% 1/6W	< BASE POST >			
R556	1-259-462-11	CARBON	27K 5% 1/6W	TB1	1-535-139-00	BASE POST 22MM (10MM PITCH)	2P
R557	1-259-446-11	CARBON	5.6K 5% 1/6W	< TERMINAL >			
R558	1-259-422-11	CARBON	560 5% 1/6W	*****			
R559	1-259-440-11	CARBON	3.3K 5% 1/6W	TM501	1-537-530-41	TERMINAL BOARD (SPEAKERS)	
R560	1-259-438-11	CARBON	2.7K 5% 1/6W	* TP501	1-535-115-00	TERMINAL	
R561	1-259-436-11	CARBON	2.2K 5% 1/6W	* TP551	1-535-115-00	TERMINAL	
R563	1-259-464-11	CARBON	33K 5% 1/6W	*****			
R564	1-259-380-11	CARBON	10 5% 1/6W	*****			
R565	1-259-380-11	CARBON	10 5% 1/6W	* 1-653-558-11	P. J. JUMPER BOARD		
R566	1-259-388-11	CARBON	22 5% 1/6W	*****			
R567	1-259-388-11	CARBON	22 5% 1/6W	*****			
△R569	1-212-869-00	FUSIBLE	33 5% 1/4W F	*****			
△R570	1-212-869-00	FUSIBLE	33 5% 1/4W F	*****			
△R571	1-212-857-00	FUSIBLE	10 5% 1/4W F	* 1-653-559-11	P. J. B BOARD		
R572	1-259-412-11	CARBON	220 5% 1/6W	*****			
R573	1-259-412-11	CARBON	220 5% 1/6W	< CAPACITOR >			
R574	1-259-388-11	CARBON	22 5% 1/6W	C119	1-126-022-11	ELECT	47uF 20% 25V
R575	1-259-388-11	CARBON	22 5% 1/6W	C120	1-126-022-11	ELECT	47uF 20% 25V
△R576	1-212-881-11	FUSIBLE	100 5% 1/4W F	C121	1-124-927-11	ELECT	4.7uF 20% 100V
△R577	1-212-881-11	FUSIBLE	100 5% 1/4W F	C123	1-162-207-31	CERAMIC	22PF 5% 50V
△R578	1-217-151-00	METAL PLATE	0.22 2W F	C124	1-124-916-11	ELECT	22uF 20% 63V
△R579	1-217-151-00	METAL PLATE	0.22 2W F	C125	1-164-159-11	CERAMIC	0.1uF 50V
△R580	1-212-857-00	FUSIBLE	10 5% 1/4W F	C169	1-126-022-11	ELECT	47uF 20% 25V
△R581	1-212-994-00	FUSIBLE	330 5% 1/2W F	The components identified by mark △ or dotted line with mark △ are critical for safety. Replace only with part number specified.			
R601	1-259-428-11	CARBON	1K 5% 1/6W				
R602	1-259-456-11	CARBON	15K 5% 1/6W				
R603	1-259-484-11	CARBON	220K 5% 1/6W				
R604	1-249-661-11	CARBON	330 5% 1/2W (G)				

**P.J.B** **PANEL**

Ref. No.	Part No.	Description	Remark			Ref. No.	Part No.	Description	Remark		
C170	1-126-022-11	ELECT	47uF	20%	25V	R184	1-259-428-11	CARBON	1K	5%	1/6W
C171	1-124-927-11	ELECT	4.7uF	20%	100V			< RELAY >			
C173	1-162-207-31	CERAMIC	22PF	5%	50V						
C174	1-124-916-11	ELECT	22uF	20%	63V						
C175	1-164-159-11	CERAMIC	0.1uF		50V	RY101	1-515-803-11	RELAY			
			< CONNECTOR >						*****		
* CN101	1-564-509-11	PLUG, CONNECTOR 6P				* A-4371-633-A	PANEL BOARD, COMPLETE (AEP, UK)				
* CN102	1-564-506-11	PLUG, CONNECTOR 3P							*****		
* CN103	1-564-506-11	PLUG, CONNECTOR 3P				* A-4371-640-A	PANEL BOARD, COMPLETE (G)				
* CN104	1-568-826-11	SOCKET, CONNECTOR 7P							*****		
			< DIODE >						< CAPACITOR >		
D101	8-719-987-63	DIODE	1N4148M			C301	1-125-623-11	DOUBLE LAYERS	0.22F		5.5V
D102	8-719-987-63	DIODE	1N4148M			C302	1-126-157-11	ELECT	10uF	20%	16V
D103	8-719-987-63	DIODE	1N4148M			C303	1-124-994-11	ELECT	100uF	20%	10V
D104	8-719-987-63	DIODE	1N4148M			C305	1-164-159-11	CERAMIC	0.1uF		50V
D105	8-719-987-63	DIODE	1N4148M			C306	1-164-159-11	CERAMIC	0.1uF		50V
D106	8-719-987-63	DIODE	1N4148M			C307	1-126-157-11	ELECT	10uF	20%	16V
D107	8-719-987-63	DIODE	1N4148M			C308	1-161-494-00	CERAMIC	0.022uF		25V
			< IC >			C309	1-161-494-00	CERAMIC	0.022uF		25V
IC102	8-759-711-35	IC	NJM4580D			C312	1-124-994-11	ELECT	100uF	20%	10V
IC103	8-759-051-63	IC	TC9215P			C313	1-161-494-00	CERAMIC	0.022uF		25V
IC104	8-759-051-63	IC	TC9215P			C314	1-164-159-11	CERAMIC	0.1uF		50V
IC105	8-759-051-63	IC	TC9215P			C402	1-137-189-11	FILM	0.18uF	5%	50V
			< TRANSISTOR >			C403	1-136-175-00	FILM	0.68uF	5%	50V
Q101	8-729-141-26	TRANSISTOR	2SC3622A-LK			C404	1-136-158-00	FILM	0.027uF	5%	50V
Q102	8-729-620-05	TRANSISTOR	2SC2603-EF			C405	1-136-164-00	FILM	0.082uF	5%	50V
Q151	8-729-141-26	TRANSISTOR	2SC3622A-LK			C452	1-137-189-11	FILM	0.18uF	5%	50V
			< RESISTOR >			C453	1-136-175-00	FILM	0.68uF	5%	50V
R128	1-259-500-11	CARBON	1M	5%	1/6W	C454	1-136-158-00	FILM	0.027uF	5%	50V
R129	1-259-476-11	CARBON	100K	5%	1/6W	C455	1-136-164-00	FILM	0.082uF	5%	50V
R130	1-259-428-11	CARBON	1K	5%	1/6W	C521	1-164-070-11	CERAMIC	100PF	5%	50V
R131	1-259-428-11	CARBON	1K	5%	1/6W				< CONNECTOR >		
R132	1-259-442-11	CARBON	3.9K	5%	1/6W	* CN301	1-568-826-11	SOCKET, CONNECTOR 7P			
R133	1-259-428-11	CARBON	1K	5%	1/6W	* CN302	1-568-826-11	SOCKET, CONNECTOR 7P			
R134	1-259-428-11	CARBON	1K	5%	1/6W	* CN304	1-564-508-11	PLUG, CONNECTOR 5P			
R135	1-259-436-11	CARBON	2.2K	5%	1/6W	* CN401	1-564-509-11	PLUG, CONNECTOR 6P			
R136	1-259-476-11	CARBON	100K	5%	1/6W				< DIODE >		
R137	1-259-452-11	CARBON	10K	5%	1/6W	D301	8-719-200-82	DIODE	11ES2		
R138	1-259-452-11	CARBON	10K	5%	1/6W	D302	8-719-200-82	DIODE	11ES2		
R139	1-259-452-11	CARBON	10K	5%	1/6W	D304	8-719-987-63	DIODE	1N4148M		
R178	1-259-500-11	CARBON	1M	5%	1/6W	D305	8-719-987-63	DIODE	1N4148M		
R179	1-259-476-11	CARBON	100K	5%	1/6W	D306	8-719-987-63	DIODE	1N4148M		
R180	1-259-428-11	CARBON	1K	5%	1/6W	D307	8-719-313-43	DIODE	SEL2210S-TH10 (SOURCE DIRECT)		
R181	1-259-428-11	CARBON	1K	5%	1/6W	D308	8-719-313-43	DIODE	SEL2210S-TH10 (DAT/VIDEO)		
R182	1-259-442-11	CARBON	3.9K	5%	1/6W	D309	8-719-313-43	DIODE	SEL2210S-TH10 (MD)		
R183	1-259-428-11	CARBON	1K	5%	1/6W	D310	8-719-313-43	DIODE	SEL2210S-TH10 (TAPE)		
						D311	8-719-313-43	DIODE	SEL2210S-TH10 (CD)		

**PANEL PIN JACK**

Ref. No.	Part No.	Description			Remark	Ref. No.	Part No.	Description			Remark
D312	8-719-313-43	DIODE	SEL2210S-TH10	(TUNER)		R409	1-259-418-11	CARBON	390	5%	1/6W
D313	8-719-313-43	DIODE	SEL2210S-TH10	(PHONO)		R451	1-259-428-11	CARBON	1K	5%	1/6W
D314	8-719-987-63	DIODE	1N4148M			R452	1-259-438-11	CARBON	2.7K	5%	1/6W
D318	8-719-987-63	DIODE	1N4148M			R453	1-259-428-11	CARBON	1K	5%	1/6W
D319	8-719-987-63	DIODE	1N4148M			R454	1-259-452-11	CARBON	10K	5%	1/6W
					< IC >	R457	1-259-460-11	CARBON	22K	5%	1/6W
IC301	8-759-284-90	IC	TMP87C846N-4109			R458	1-259-500-11	CARBON	1M	5%	1/6W
IC302	8-759-635-63	IC	M51943BSL			R459	1-259-418-11	CARBON	390	5%	1/6W
											< VARIABLE RESISTOR >
Q301	8-729-900-63	TRANSISTOR	DTA124ES			RV401	1-241-972-11	RES, VAR, CARBON	10K/10K	(BASS)	
Q302	8-729-620-05	TRANSISTOR	2SC2603-EF			RV402	1-241-974-11	RES, VAR, CARBON	10K/10K	(TREBLE)	
Q303	8-729-900-61	TRANSISTOR	DTA114ES			RV403	1-241-973-11	RES, VAR, CARBON	100K/100K	(BALANCE)	
Q304	8-729-900-61	TRANSISTOR	DTA114ES								< SWITCH >
Q305	8-729-900-36	TRANSISTOR	DTC124ES			S301	1-554-303-21	SWITCH, TACTILE	(SOURCE DIRECT)		
						S302	1-692-974-11	SWITCH, ROTARY	(FUNCTION)		
											< VIBRATOR >
R301	1-249-429-11	CARBON	10K	5%	1/4W	X301	1-579-125-11	VIBRATOR, CERAMIC	(8MHz)		
R302	1-249-433-11	CARBON	22K	5%	1/4W						*****
R303	1-249-429-11	CARBON	10K	5%	1/4W						*****
△R304	1-249-393-11	CARBON	10	5%	1/4W F						*****
R305	1-249-429-11	CARBON	10K	5%	1/4W						*****
R306	1-249-429-11	CARBON	10K	5%	1/4W						*****
△R307	1-249-417-11	CARBON	1K	5%	1/4W F	*	1-653-557-11	PIN JACK BOARD			
R308	1-249-426-11	CARBON	5.6K	5%	1/4W						*****
R309	1-249-433-11	CARBON	22K	5%	1/4W						*****
R310	1-249-431-11	CARBON	15K	5%	1/4W						*****
											< CAPACITOR >
△R311	1-249-427-11	CARBON	6.8K	5%	1/4W F	C111	1-124-925-11	ELECT	2.2uF	20%	100V
△R312	1-249-417-11	CARBON	1K	5%	1/4W F	C113	1-162-282-31	CERAMIC	100PF	10%	50V
△R313	1-249-423-11	CARBON	3.3K	5%	1/4W F	C114	1-124-910-11	ELECT	47uF	20%	50V
△R314	1-249-423-11	CARBON	3.3K	5%	1/4W F	C115	1-162-219-31	CERAMIC	68PF	5%	50V
△R315	1-249-417-11	CARBON	1K	5%	1/4W F	C116	1-130-480-00	MYLAR	0.0056uF	5%	50V
△R316	1-249-425-11	CARBON	4.7K	5%	1/4W F	C117	1-130-473-00	MYLAR	0.0015uF	5%	50V
△R321	1-249-417-11	CARBON	1K	5%	1/4W F	C118	1-124-925-11	ELECT	2.2uF	20%	100V
△R322	1-249-417-11	CARBON	1K	5%	1/4W F	C161	1-124-925-11	ELECT	2.2uF	20%	100V
R323	1-249-429-11	CARBON	10K	5%	1/4W	C163	1-162-282-31	CERAMIC	100PF	10%	50V
△R324	1-249-417-11	CARBON	1K	5%	1/4W F	C164	1-124-910-11	ELECT	47uF	20%	50V
△R325	1-249-417-11	CARBON	1K	5%	1/4W F	C165	1-162-219-31	CERAMIC	68PF	5%	50V
△R326	1-249-417-11	CARBON	1K	5%	1/4W F	C166	1-130-480-00	MYLAR	0.0056uF	5%	50V
△R327	1-249-417-11	CARBON	1K	5%	1/4W F	C167	1-130-473-00	MYLAR	0.0015uF	5%	50V
△R328	1-249-414-11	CARBON	560	5%	1/4W F	C168	1-124-925-11	ELECT	2.2uF	20%	100V
△R329	1-249-414-11	CARBON	560	5%	1/4W F						< IC >
△R330	1-249-414-11	CARBON	560	5%	1/4W F						
R333	1-249-433-11	CARBON	22K	5%	1/4W	IC101	8-759-710-59	IC	NJM4580D-D		
R401	1-259-428-11	CARBON	1K	5%	1/6W						< JACK >
R402	1-259-438-11	CARBON	2.7K	5%	1/6W						
R403	1-259-428-11	CARBON	1K	5%	1/6W						
R404	1-259-452-11	CARBON	10K	5%	1/6W	*	J101	1-764-389-11	JACK, PIN 2P	(PHONO IN)	
R407	1-259-460-11	CARBON	22K	5%	1/6W	J102	1-766-261-11	JACK, PIN 4P	(TUNER/CD IN)		
R408	1-259-500-11	CARBON	1M	5%	1/6W	J103	1-565-304-11	JACK, PIN 4P	(TAPE IN/OUT)		
						J104	1-565-303-11	JACK, PIN 6P	(MD IN/OUT)		

The components identified by mark  or dotted line with mark  are critical for safety.  
Replace only with part number specified

**PIN JACK** **POWER SWITCH** **VOLUME**

<u>Ref. No.</u>	<u>Part No.</u>	<u>Description</u>			<u>Remark</u>	<u>Ref. No.</u>	<u>Part No.</u>	<u>Description</u>			<u>Remark</u>							
J105	1-565-303-11	JACK, PIN 6P	DAT/VIDEO/ADAPTOR	IN/OUT		R171	1-259-428-11	CARBON	1K	5%	1/6W							
		< RESISTOR >				R172	1-259-494-11	CARBON	560K	5%	1/6W							
R102	1-259-428-11	CARBON	1K	5%	1/6W	R173	1-259-472-11	CARBON	68K	5%	1/6W							
R103	1-259-500-11	CARBON	1M	5%	1/6W	R174	1-259-470-11	CARBON	56K	5%	1/6W							
R104	1-259-428-11	CARBON	1K	5%	1/6W	R175	1-259-490-11	CARBON	390K	5%	1/6W							
R105	1-259-500-11	CARBON	1M	5%	1/6W	R176	1-259-412-11	CARBON	220	5%	1/6W							
R106	1-259-420-11	CARBON	470	5%	1/6W	R177	1-259-476-11	CARBON	100K	5%	1/6W							
R107	1-259-428-11	CARBON	1K	5%	1/6W	*****												
R108	1-259-500-11	CARBON	1M	5%	1/6W	*	1-653-562-11	POWER SWITCH BOARD	*****									
R109	1-259-420-11	CARBON	470	5%	1/6W				< CAPACITOR >									
R110	1-259-428-11	CARBON	1K	5%	1/6W				< DIODE >									
R111	1-259-500-11	CARBON	1M	5%	1/6W				D315	8-719-987-63	DIODE	1N4148M						
R112	1-259-420-11	CARBON	470	5%	1/6W				D316	8-719-313-40	DIODE	SEL1516W (ON/STANDBY)						
R113	1-259-428-11	CARBON	1K	5%	1/6W													
R114	1-259-500-11	CARBON	1M	5%	1/6W													
R115	1-259-420-11	CARBON	470	5%	1/6W													
R116	1-259-428-11	CARBON	1K	5%	1/6W													
R117	1-259-500-11	CARBON	1M	5%	1/6W													
R118	1-259-476-11	CARBON	100K	5%	1/6W													
R119	1-259-428-11	CARBON	1K	5%	1/6W													
R120	1-259-476-11	CARBON	100K	5%	1/6W													
R121	1-259-428-11	CARBON	1K	5%	1/6W				IC303	8-749-922-36	IC	GP1U50XB						
R122	1-259-494-11	CARBON	560K	5%	1/6W													
R123	1-259-472-11	CARBON	68K	5%	1/6W													
R124	1-259-470-11	CARBON	56K	5%	1/6W													
R125	1-259-490-11	CARBON	390K	5%	1/6W													
R126	1-259-412-11	CARBON	220	5%	1/6W													
R127	1-259-476-11	CARBON	100K	5%	1/6W													
R152	1-259-428-11	CARBON	1K	5%	1/6W				S303	1-554-118-00	SWITCH, PUSH (1 KEY)	(POWER)						
R153	1-259-500-11	CARBON	1M	5%	1/6W													
R154	1-259-428-11	CARBON	1K	5%	1/6W													
R155	1-259-500-11	CARBON	1M	5%	1/6W													
R156	1-259-420-11	CARBON	470	5%	1/6W													
R157	1-259-428-11	CARBON	1K	5%	1/6W													
R158	1-259-500-11	CARBON	1M	5%	1/6W													
R159	1-259-420-11	CARBON	470	5%	1/6W													
R160	1-259-428-11	CARBON	1K	5%	1/6W													
R161	1-259-500-11	CARBON	1M	5%	1/6W													
R162	1-259-420-11	CARBON	470	5%	1/6W													
R163	1-259-428-11	CARBON	1K	5%	1/6W													
R164	1-259-500-11	CARBON	1M	5%	1/6W													
R165	1-259-420-11	CARBON	470	5%	1/6W													
R166	1-259-428-11	CARBON	1K	5%	1/6W													
R167	1-259-500-11	CARBON	1M	5%	1/6W													
R168	1-259-476-11	CARBON	100K	5%	1/6W													
R169	1-259-428-11	CARBON	1K	5%	1/6W													
R170	1-259-476-11	CARBON	100K	5%	1/6W													
									D401	8-719-200-82	DIODE	11ES2						
									IC401	8-759-962-08	IC	BA6208						

The components identified by mark  $\Delta$  or dotted line with mark  $\Delta$  are critical for safety. Replace only with part number specified.

# VOLUME

<u>Ref. No.</u>	<u>Part No.</u>	<u>Description</u>	<u>Remark</u>	<u>Ref. No.</u>	<u>Part No.</u>	<u>Description</u>	<u>Remark</u>
< RESISTOR >							
▲R410	1-249-389-11	CARBON	4.7 5% 1/4W F	#1	7-685-645-79	SCREW +BVTP 3X6 TYPE2 N-S	*****
< VARIABLE RESISTOR >							
RV404	1-241-921-21	RES, VAR, CARBON 120K/120K (ATTENUATOR)		#2	7-682-560-04	SCREW +BVTT 4X6 (S)	*****
*****							
MISCELLANEOUS							
*****							
14	1-751-801-11	WIRE (FLAT TYPE) (7 CORE)		#3	7-685-650-79	SCREW +BVTP 3X16 TYPE2	
17	1-696-986-11	WIRE (FLAT TYPE) (7 CORE)		#4	7-685-646-79	SCREW +BVTP 3X8 TYPE2 IT-3	
▲51	1-575-651-21	CORD, POWER (AEP, G)					
▲51	1-696-571-11	CORD, POWER (UK)					
61	1-535-706-11	PLUG, JUMPER					
65	1-533-293-11	FUSE HOLDER					
68	1-537-770-11	TERMINAL BOARD, GROUND					
* 69	1-560-242-31	BUS BAR 5P					
▲CNJ1	1-526-794-11	OUTLET, AC					
* CNL501	1-690-880-11	LEAD (WITH CONNECTOR)					
▲F1	1-532-078-00	FUSE, TIME LAG (T1A 250V)					
▲F2	1-532-259-00	FUSE, TIME LAG (T1.6A 250V)					
Q506	8-729-209-15	TRANSISTOR 2SD2012					
Q508	8-729-232-45	TRANSISTOR 2SK1529-Y					
Q509	8-729-232-46	TRANSISTOR 2SJ200-Y					
Q556	8-729-209-15	TRANSISTOR 2SD2012					
Q558	8-729-232-45	TRANSISTOR 2SK1529-Y					
Q559	8-729-232-46	TRANSISTOR 2SJ200-Y					
▲T2	1-426-823-11	TRANSFORMER, POWER (G)					
▲T2	1-426-824-11	TRANSFORMER, POWER (AEP, UK)					
*****							
ACCESSORIES & PACKING MATERIALS							
*****							
1-467-796-11 REMOTE COMMANDER (RM-S1)							
1-590-219-11 CORD (WITH CONNECTOR)							
3-759-590-11 MANUAL, INSTRUCTION (ENGLISH, FRENCH, SPANISH, PORTUGUESE) (AEP)							
3-759-590-41 MANUAL, INSTRUCTION (GERMAN, DUTCH, SWEDISH, ITALIAN) (AEP, G)							
3-759-590-51 MANUAL, INSTRUCTION (ENGLISH) (UK)							
4-955-381-01 CASE, BATTERY (for RM-S1)							
* 4-968-991-01	CUSHION (AEP, G)						
* 4-968-992-61	INDIVIDUAL CARTON (AEP, G)						
* 4-970-588-11	PLATE (PIN JACK 4P), INDICATION						
* 4-970-607-01	PLATE (PIN JACK 8P), INDICATION						
*****							

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